# Indiana Epidemiology NEWSLETTER



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### **Bioterrorism Update**

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The Indiana State Department of Health (ISDH) has developed a protocol for on-site risk and exposure assessment and sample collection for emergency departments, law enforcement agencies, fire departments and medical personnel. This document gives guidelines to assess credible threats and determine routes of possible exposure. Also included are measures for medical management of possible exposures and environmental sample collection and submission procedures. Copies are available by e-mail or fax upon request. Updated information regarding clinical evaluation of persons with possible anthrax infection is available from the Centers for Disease Control and Prevention (CDC) at <a href="www.cdc.gov/mmwr/preview/mmwrhtml/mm5043a1.htm">www.cdc.gov/mmwr/preview/mmwrhtml/mm5043a1.htm</a>. Evaluation algorithms included in the article are reprinted in this newsletter.

The ISDH laboratory professionals continue to diligently process and test samples, often late into the evening. Over 1,000 environmental samples have been tested. No positive samples have been identified in the samples tested. No cases of anthrax have been identified in Indiana.

#### Frequently Asked Questions

**Note:** The following information has been adapted from material from the CDC at <a href="www.bt.cdc.gov">www.bt.cdc.gov</a>, the World Health Organization at <a href="www.who.int/home-page">www.who.int/home-page</a>, the Office of Domestic Preparedness at <a href="www.ojp.usdoj.gov/odp">www.ojp.usdoj.gov/odp</a>, and the Center for Civilian Biodefense Studies at <a href="www.hopkins-biodefense.org">www.hopkins-biodefense.org</a>.

- Q. I am a physician who has seen several patients without symptoms but who claim to have been exposed to anthrax. Should I collect nasal swabs?
- **A.** No. Nasal swabs are used as an epidemiologic tool only in instances where there is a known exposure. Nasal swabs are not used for diagnostic testing in symptomatic people, or

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in asymptomatic people with unconfirmed exposure. For people with no symptoms, a risk assessment is made to determine whether or not a threat exists. If a threat exists, and it is not possible to confirm the threat with laboratory testing, or there is a confirmed exposure, prophylactic antibiotics are prescribed. For people who present with symptoms of cutaneous (skin) or inhalation anthrax and who have a credible exposure, the appropriate clinical specimens are collected and antibiotic treatment started immediately. Whenever possible, threats should be confirmed with laboratory testing of the environment/substance posing the threat.

## Q. We work at a facility where some suspicious powder was noticed on some equipment. Should we be tested?

**A.** A: No. For people with no symptoms, a risk assessment is made to determine whether or not a threat exists. If a threat exists, or there is a confirmed exposure, prophylactic antibiotics are prescribed. For people who present **with symptoms** of cutaneous (skin) or inhalation anthrax and who have a credible exposure, the appropriate clinical specimens are collected and antibiotic treatment started immediately.

#### Q. What should people do who get a letter or package with powder?

A. Detailed guidance can be found at <a href="https://www.bt.cdc.gov/documentsapp/anthrax/10312001/han50.asp">www.bt.cdc.gov/documentsapp/anthrax/10312001/han50.asp</a>

#### Q. Can anthrax spores be killed on letters in the mail by microwave, UV light, or ironing?

**A.** While some of these methods may kill some spores, it is not known what procedures to use (length of time, temperature, etc.). Furthermore, because of insufficient data on the efficacy of these methods to inactivate anthrax spores, CDC does not recommend these techniques for reliable decontamination. Microwaving or ironing may also cause the items to catch fire or damage the appliance.

#### Q. How do I know that my flu symptoms are not anthrax?

**A.** Many illnesses begin with "flu-like" symptoms, such as fever, fatigue, and muscle aches. If you have influenza, you may also have headache, dry cough, sore throat, and runny nose. Inhalation anthrax begins with fever, fatigue, muscle aches and dry cough, then progresses to severe respiratory problems. Upper respiratory symptoms, such as runny nose, are usually not seen in people with inhalation anthrax.

## Q. Is there any recommendation for getting a flu shot to reduce the number of flu-like illnesses that may be confused with anthrax?

A. No. The CDC does not recommend that influenza vaccination be considered as a way to avoid confusing influenza with suspected inhalation anthrax. Influenza vaccine can prevent 70-90%, but not all, influenza infections in healthy adults. Many other agents can cause illnesses that begin with flu-like symptoms, and most of these illnesses are not caused by influenza viruses or anthrax bacteria. The vaccine does not prevent "flu-like" illness caused by infectious agents other than influenza, which account for the majority of "flu-like" illnesses.

#### Q. How should anthrax exposure be treated? Should people get vaccinated against anthrax?

**A.** Antibiotics are used to treat anthrax infection and to prevent infection from occurring in those who have been exposed. Vaccination is not recommended, and the vaccine is not available to health care providers or the general public.

#### Q. Should people have a prescription supply of antibiotics on hand in case it is needed?

**A.** No. Antibiotics from the US stockpile will be made available if they are needed. In the meantime, antibiotics should not be prescribed unless there is a clearly indicated need.

#### Q. How do you define a "credible threat"?

- **A.** Guidelines to determine whether or not a threat is credible are found elsewhere in this newsletter. Questions to consider include:
  - Are the persons involved likely targets of a threat (media, elected officials, etc.)?
  - Was an actual threat received with the item?
  - Is the location accessible to possible attack?
  - Is there a logical explanation for the item/area causing concern?
  - In case of spills, does anyone on site remember who might have spilled something?
  - In case of mailed items, was the item delivered from a usual source/courier in the usual manner?

Depending on the responses and information acquired at the scene, the threat may be defined as credible. Testing of items/areas from credible threats is prioritized. Any positive results from environmental samples will be telephoned immediately to the law enforcement agency delivering the sample to the ISDH Laboratories

## Q. If someone is suspected of being exposed to anthrax, should that person be quarantined or should other family members be tested?

**A.** Anthrax infection is not transmissible person-to-person, so there is no need to quarantine people suspected of being exposed. Contacts of people ill with anthrax are only treated if they were also exposed to the same source of infection. Testing is necessary only if some has symptoms of anthrax infection.

#### Q. Should I buy a gas mask?

A. No. A mask would only protect someone in the exact moment a bioterrorist attack occurred. A release of a biological agent would most likely be done without anyone knowing, so you would not know when to put on a mask. To wear a mask all the time is impractical, if not impossible. To work effectively, masks must be specially fitted to the wearer, wearers must be trained in the proper use of a mask. This is usually done for the military and workers who face routine exposure to chemicals and disease agents on the job. Gas masks purchased at Army surplus stores or from the Internet are not guaranteed to work, and no guarantees are provided. Masks can be dangerous if not worn correctly.

#### Q. Is there any recommendation to begin immunizing the US population against smallpox?

A. No. The World Health Organization (WHO) updated guidance on smallpox vaccination on October 26. In summary, the guidance is that vaccination of entire populations is no recommended because there is a risk of severe reactions to the vaccine, including death, especially among those with weakened immune systems. In addition, vaccination does provide protection if received within four days of exposure. The CDC has approximately 15 million doses stored for use in the event of an emergency. Additional vaccine is being produced. If a case of smallpox would happen to be identified, an investigation by federal, state and local health officials would begin immediately to locate anyone who may have been in contact with that case. Those people would receive vaccination.

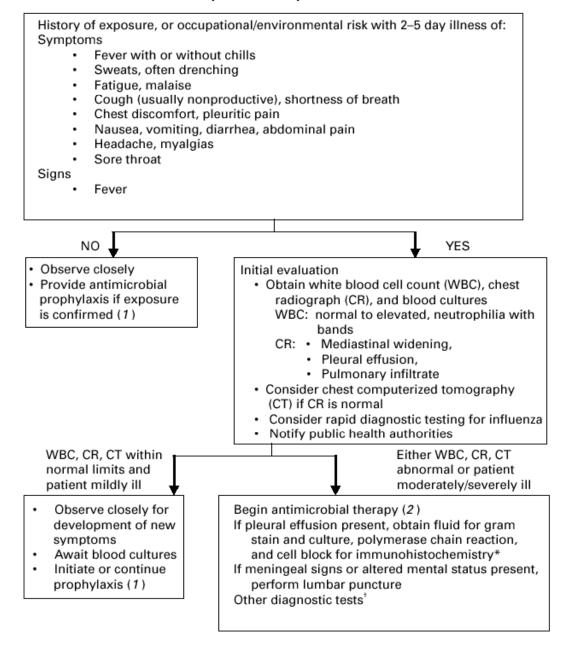
#### Q. Am I protected against smallpox if I received vaccination as a child?

**A.** It is unlikely someone would be completely protected, since vaccinations were suspended in the US in 1972. Immunity would likely have waned since then. However, according to the WHO, people who have been vaccinated in the past are unlikely to develop the most serious effects of smallpox and may have some lingering protection.

#### **Clinical Evaluation of Possible Anthrax Cases**

**Note:** This information is adapted from the Centers for Disease Control and Prevention (CDC) Morbidity and Mortality Weekly Report, Nov. 2, 2001/Vol. 50/No. 43. The entire article can be found at www.cdc.gov/mmwr/preview/mmwrhtml/mm5043a1.htm.

FIGURE 2. Clinical evaluation of persons with possible inhalational anthrax

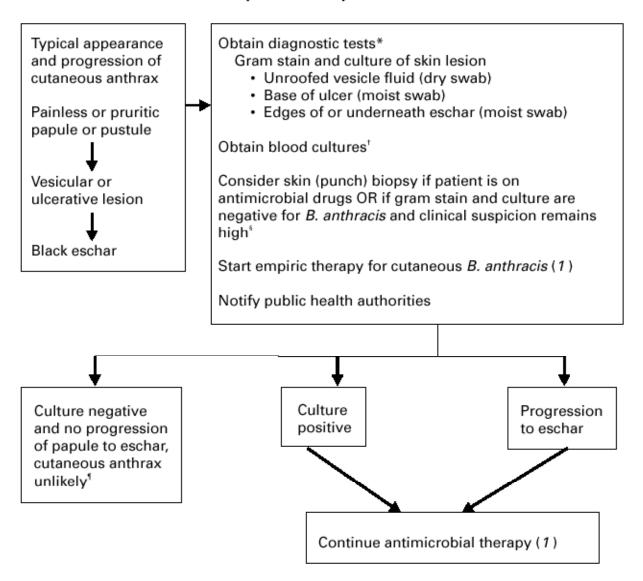


- \* Available through CDC or LRN. Cell block obtained by centrifugation of pleural fluid.
- <sup>†</sup> Serologic testing available at CDC may be an additional diagnostic technique.

#### References

- CDC. Update: investigation of anthrax associated with intentional exposure and interim public health guidelines, October 2001. MMWR 2001;50:889–93.
- CDC. Update: investigation of bioterrorism-related anthrax and interim guidelines for exposure management and antimicrobial therapy, October 2001. MMWR 2001;50:909–19.

FIGURE 3. Clinical evaluation of persons with possible cutaneous anthrax



- \* Serologic testing available at CDC may be an additional diagnostic technique for confirmation of cases of cutaneous anthrax.
- <sup>†</sup> If blood cultures are positive for *B. anthracis*, treat with antimicrobials as for inhalational anthrax (1).
- <sup>5</sup> Punch biopsy should be submitted in formalin to CDC. Polymerase chain reaction can also be done on formalin-fixed specimen. Gram stain and culture are frequently negative for B. anthracis after initiation of antimicrobials.
- <sup>1</sup> Continued antimicrobial prophylaxis for inhalational anthrax for 60 days if aerosol exposure to *B. anthracis* is known or suspected (2).

#### Reference

- CDC. Update: investigation of bioterrorism-related anthrax and interim guidelines for exposure management and antimicrobial therapy, October 2001. MMWR 2001;50:909–19.
- CDC. Update: investigation of anthrax associated with intentional exposure and interim public health guidelines, October 2001. MMWR 2001;50:889–93.



## November 9, 2001 / 50(44);987-990

## Notice to Readers: Interim Guidelines for Investigation of and Response to *Bacillus Anthracis* Exposures

**Environmental Sampling.** Environmental testing to detect *B. anthracis* on surfaces or in the air can be used to investigate known or suspected exposure events. The highest priority of an investigation is to evaluate the risk for exposure to aerosolized *B. anthracis* spores. Persons collecting and testing samples should 1) obtain adequate samples, 2) avoid cross-contamination during processing, and 3) ensure proficient laboratory testing and interpretation of test results. A positive laboratory test for *B. anthracis* from a sample of an environmental surface may be caused by cross-contamination from an exposure vehicle (e.g., contact with an envelope containing *B. anthracis*), background occurrence of *B. anthracis* spores in the environment, or previously aerosolized *B. anthracis* that has settled onto environmental surfaces. Laboratory test results of environmental surface samples should not be the only criterion for starting, continuing, or stopping antimicrobial prophylaxis for inhalational disease.

Environmental sampling can be directed, prospective, or random. In directed sampling, air and/or surface samples are obtained as part of an investigation of a specific threat, a known exposure, or of persons with bioterrorism-related anthrax. Directed environmental sampling may play a critical role in characterizing potential exposures and guiding public health action (Box 1).

Prospective environmental sampling is defined as ongoing sampling and testing of air or surfaces for *B. anthracis* spores. The value of prospective sampling is not known. Current technologies for monitoring air for *B. anthracis* and other agents are not validated and their performance has not been assessed during bioterrorism events. Prospective environmental sampling of surfaces may have a role in detecting *B. anthracis* contamination, especially at facilities or events determined to be at high risk for bioterrorism (Box 1).

The testing of random environmental samples (i.e., sampling air or surfaces of facilities that are not directly associated with confirmed anthrax disease or a known *B. anthracis* exposure) is of uncertain utility in detecting past exposures. Random positive tests for *B. anthracis* spores may represent crosscontamination from an exposure vehicle (e.g., letter) that poses negligible risks for inhalational anthrax. These positive test results may prompt more extensive evaluation to direct cleanup, if needed.

**Nasal Swab Cultures.** Nasal swab cultures should not be used to diagnose cases of anthrax or to evaluate whether a person had been exposed. Nasal swab cultures may be useful in the investigation of known or suspected airborne *B. anthracis* (Box 1). Because the sensitivity of nasal swab cultures decreases over time, cultures should be obtained within 7 days of the exposure. The presence of *B. anthracis* from a nasal swab culture cannot be determined by gram stain or colony characteristics alone and requires confirmatory testing by qualified laboratories.

Antimicrobial Prophylaxis. Antimicrobial prophylaxis is used to prevent cases of inhalational anthrax (Box 1). Public health authorities often start prophylaxis before the extent of exposure is known. Subsequent epidemiologic and laboratory test data may indicate that some persons started on prophylaxis were not exposed. These persons should stop antimicrobial prophylaxis. Persons who were exposed should complete 60 days of therapy. No shorter course of antimicrobial prophylaxis exists. The choice of an antimicrobial agent should be based on antimicrobial susceptibility, the drug's effectiveness, adverse events, and cost. *B. anthracis* isolates from patients with bioterrorism-related anthrax have been susceptible to ciprofloxacin, doxycycline, and other agents; the use of doxycycline may be preferable to prevent development of ciprofloxacin resistance in more common bacteria (1). Respiratory transmission of *B. anthracis* from person-to-person does not occur; no antimicrobial prophylaxis is indicated.

Closing Facilities. The decision to close a facility is made to prevent cases of inhalational anthrax (Box 1). The facility should remain closed until the risk for inhalational disease is eliminated.

#### Reference

1. CDC. Update: investigation of bioterrorism-related anthrax and interim guidelines for exposure management and antimicrobial therapy, October 2001. MMWR 2001;50:909--19.

## BOX 1. Interim guidelines for investigation of and response to *B. anthracis* exposures Environmental Sampling

Directed sampling of environmental surfaces may be indicated:

- To identify a site or source of *Bacillus anthracis* exposure that has resulted in a case(s) of anthrax
- To trace the route of an exposure vehicle (e.g., a powdercontaining letter)
- To obtain the *B. anthracis* strain when isolates from patients are not available
- To guide cleanup activities in a contaminated area or building
- To assess biosafety procedures in laboratories processing *B. anthracis* specimens

Prospective sampling of environmental surfaces may be indicated:

- To identify receipt of a contaminated exposure vehicle in high risk facilities (e.g., mailrooms of targeted persons or groups)
- To detect aerosolized *B. anthracis* in high risk areas or events

Laboratory testing of environmental surface samples should not be the only means to determine the need for antimicrobial prophylaxis.

#### **Nasal Swab Cultures**

Collection of nasal swabs for culture of *B. anthracis* may be useful:

- To help define an area of exposure to aerosolized *B. anthracis*
- To help ascertain where a person with inhalational anthrax was exposed if the time and place of exposure are not already known

Collection of nasal swabs for culture of *B. anthracis* is not indicated:

- To diagnose anthrax
- To determine a person's risk of exposure and the need for antimicrobial prophylaxis
- To determine when antimicrobial prophylaxis should be stopped
- To supplement random environmental sampling

#### **Antimicrobial Prophylaxis**

Antimicrobial prophylaxis may be initiated pending additional information when:

- A person is exposed to an air space where a suspicious material may have been aerosolized (e.g., near a suspicious powder-containing letter during opening)
- A person has shared the air space likely to be the source of an inhalational anthrax case

#### Antimicrobial prophylaxis should be continued for 60 days for:

- Persons exposed to an air space known to be contaminated with aerosolized B. anthracis
- Persons exposed to an air space known to be the source of an inhalational anthrax case
- Persons along the transit path of an envelope or other vehicle containing *B. anthracis* that may have been aerosolized (e.g., a postal sorting facility in which an envelope containing *B. anthracis* was processed)
- Unvaccinated laboratory workers exposed to confirmed *B. anthracis* cultures

#### Antimicrobial prophylaxis is not indicated:

- For prevention of cutaneous anthrax
- For autopsy personnel examining bodies infected with anthrax when appropriate isolation precautions and procedures are followed
- For hospital personnel caring for patients with anthrax
- For persons who routinely open or handle mail in the absence of a suspicious letter or credible threat

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A positive test for B. anthracis from a randomly collected specimen does not require implementation of antimicrobial prophylaxis or the closing of a facility.

#### **Closing a Facility**

Closing a facility or a part of a facility may be indicated:

- After an inhalational anthrax case is detected and a probable site of exposure in the facility is identified
- When there is a known aerosolization of B. anthracis in the facility
- When evidence strongly suggests an aerosolization of *B. anthracis* in the facility
- As determined by law enforcement authorities in a criminal investigation

#### Closing a facility is not indicated:

- Based only on the identification of B. anthracis from samples of environmental surfaces
- Based only on the identification of a cutaneous anthrax cases

**Note:** This information is adapted from the Centers for Disease Control and Prevention (CDC) Morbidity and Mortality Weekly Report, Nov. 9, 2001/Vol. 50/No. 44 and can be accessed at <a href="https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5044a6.htm">www.cdc.gov/mmwr/preview/mmwrhtml/mm5044a6.htm</a>.

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#### **Aseptic Meningitis Case Definition**

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Aseptic meningitis is a fairly common, but rarely fatal, clinical syndrome that has several viral etiologies. The illness is characterized by a sudden onset of fever with signs and symptoms of meningeal involvement. There are many different viruses capable of producing meningeal features. Over half of aseptic meningitis cases have no demonstrated etiology. In the United States, enteroviruses are the most common cause of aseptic meningitis. The Indiana State Department of Health (ISDH) has seen a dramatic increase in the number of cases in 2001, as compared to the two previous years. The number of cases reported in 1999 and 2000 were 220 and 240, respectively; whereas, the number of cases reported in 2001 has already reached 500.

In response to this increase, the ISDH has developed a case definition based on diagnostic tools. The Centers for Disease Control and Prevention (CDC) does not recognize aseptic meningitis as a reportable disease, and therefore has no case definition. This case definition applies only to the state of Indiana, which requires reporting of meningitis cases according to the Communicable Disease Reporting Rule.

#### **Case Definition**

A case of aseptic meningitis is confirmed if one of the following conditions is met:

- A virus is isolated from CSF whether or not symptoms are reported.
- > Symptoms are present and CSF WBCs >5/cc; lymphocytes predominate.
- > Symptoms (fever, headache, photophobia, may or may not have a stiff neck); CSF WBCs >5/cc, elevated protein (if done).
- A virus is isolated in another body fluid and CSF WBCs >5/cc; lymphocytes predominate
- ➤ CSF WBCs>5/cc; lymphocytes predominate.

A case is considered to be probable if one of the following conditions is met:

- A report with symptoms, no bacterial growth in the CSF, and no differential WBCs.
- A report with symptoms and no bacterial growth from the CSF.
- > Provided report with no symptoms listed, CSF WBCs >5/cc, and no bacterial growth.

A case is considered to be suspect if one of the following conditions is met:

- Provider report stating aseptic meningitis with no other information included
- > A report with symptoms but no CSF testing
- ➤ Provided report, no symptoms listed, CSF WBCs >5/cc.

A case is NOT considered to be a case if one of the following conditions exist:

- ➤ A report with symptoms and CSF WBCs <5/cc
- A report with symptoms and normal glucose and/or protein.
- ➤ WBCs >10/cc in CSF (with or without antibiotics prior to test), and PMNs predominate.
- Bacteria isolated in CSF.

#### 2001 Epidemiology

So far this year, there are have been 109 confirmed cases, 317 probable cases, and 74 suspect cases reported to the ISDH. Thirteen of these cases have been confirmed to be caused by enteroviruses. The incidence of aseptic meningitis in Indiana appears to be highest in late summer and early fall (Figure 1). The top five reporting counties in Indiana are Marion, Vanderburgh, Lake, St. Joseph, and Allen. Combined, these five counties account for 316 of the 500 reported cases. The age range for cases is from 4 days to 81 years (Figure 2). Prevention is key to the control of spread of aseptic meningitis. Good and frequent hand washing significantly limits the spread of the disease.

Figure 1.

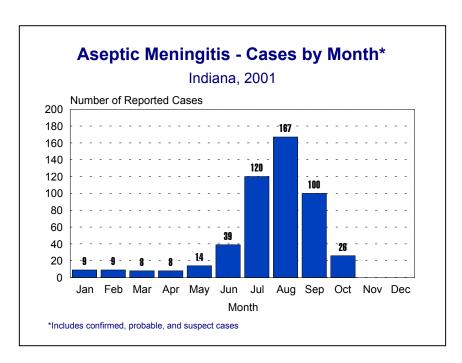
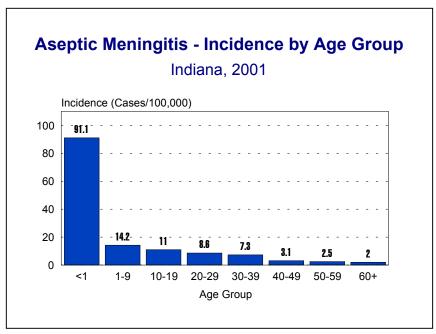
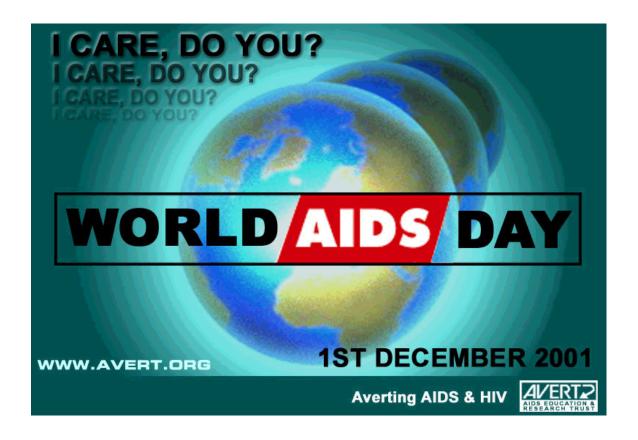


Figure 2.



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#### I care. Do you?

Jerry Burkman, R.N., M.P.H. ISDH HIV/STD

World AIDS Day has a special place in the history of the AIDS pandemic. Since 1988 December 1<sup>st</sup> has been a day bringing messages of compassion, hope, solidarity, and understanding about AIDS to every country in the world. World AIDS Day emerged from the call by the World Summit of Ministers of Health on Programs for AIDS Prevention in January 1988 to open channels of communication, strengthen the exchange of information and experience, and forge a spirit of social tolerance.

Even though it is still called "World AIDS Day", it focuses on both HIV and its most life threatening stage, AIDS. HIV is a retrovirus that is 1/10,000 of a millimeter in diameter. It replicates and destroys the immune system defenses of those infected. When the immune system is sufficiently compromised, opportunistic infections can cause severe illness, incapacitation, and even death.

#### History of HIV and AIDS

For a disease, HIV and AIDS have had a short history but worldwide impact. This year is the 20<sup>th</sup> anniversary of the first report of AIDS by the Centers for Disease Control and Prevention. At that time, the epidemic was largely among men who have sex with other men. The causative virus was identified in 1984, and by 1985, testing was available for the nation's blood supply, Rock Hudson died of AIDS, and Ryan White started his fight to attend school even though he was infected with the virus. Most diagnoses were made after the immune system was devastated. Death was the natural outcome within a couple of years.

By 1987 AZT was available for treatment and prolonged life. In 1996 Highly Active Antiretroviral Therapy (HAART) became available. This, along with other treatments and treatment plans, has prolonged life and the quality of life. Meanwhile, the disease has spread to include the entire world. Africa has always been the most impacted by the disease, but today previously closed China is facing a massive epidemic. In 1999 vaccine trials began. Still, there is no cure.

The most frequent mode of transmission in the world in now heterosexual. The most frequent in the United States is still men who have sex with men, but heterosexual transmission is gaining. Even though there is no treatment, there are prevention techniques, the most common ones being sexual abstinence, monogamous sexual relationships with non-HIV infected partners, using condoms with every sexual encounter, not sharing needles, and using clean needles for injecting drugs.

#### Worldwide AIDS

Worldwide there are approximately 33.6 million people living with HIV disease. More than 5.6 million are infected each year and 16,000 each day. There have been more than 11.2 million children orphaned due to parents dying with HIV disease. Of those infected, 46% are women. In 1999 roughly 2.6 million people died with HIV disease, and over 18 million have died since the epidemic started. The AIDS toll is expected to double in the next decade. In sub-Saharan Africa over 10% of the population between 15-49 years old is infected with HIV. In Zimbabwe, one-fifth to one-fourth of the adult population is infected. In Botswana, over one-third of the adults are infected. Of today's 15-year-old boys, two-thirds will die with HIV disease.

#### **United States AIDS**

In the United States, over a quarter of a million people have been diagnosed with AIDS. Not all states report HIV infection, so there are no data available on diagnosed HIV infection. Through serosurveillance studies, it is estimated that over 900,000 people are currently infected. Most of the reported AIDS cases have been transmitted from man to man (46%), but heterosexual transmission is up to 11% of all cases. Injecting drug use accounts for 25% of the cases and those with both risk factors (men who have sex with men and also inject drugs) account for 6%. Of those that have been diagnosed with AIDS, 9% are not able to identify the behavior/event that transmitted the virus. Most of the cases of AIDS are adults, with 17% being 20-29 years old, 45% being 30-39 years old, and 26% being 40-49 years old when they were diagnosed. Nationwide, youth (13-19 years old) represent 0.51% of the reported AIDS cases. In numbers, the epidemic remains in the Caucasian population. About 43% of the cases are White, 40% African-American or Black, and 18% are Hispanic of any race. Males account for 83% of the AIDS cases.

#### Indiana AIDS

As of September 30, 2001, 6,337 people have been diagnosed with AIDS in Indiana. HIV infection is reportable in Indiana, and an additional 3,661 people have been reported with HIV infection. It is estimated that over 9,000 people are currently infected and living in Indiana. Most of the reported AIDS cases have been transmitted from man to man (62%), but heterosexual transmission accounts up to 9% of all AIDS cases. Injecting drug use accounts for 10% of the cases and those with both risk factors (men who have sex with men and also inject drugs) account for 7%. Of those that have been diagnosed with AIDS, 8% are not able to identify the behavior/event that transmitted the virus. Most of the cases of AIDS are adults, with 20% being 20-29 years old, 47% being 30-39 years old, and 22% being 40-49 years old when they were diagnosed. Youth (13-19 years old) represent 0.69% of the reported AIDS cases. In numbers, the epidemic remains in the Caucasian population. About 70% of the cases are White, 25% African-American or Black, and 3% are Hispanic of any race. The epidemic of AIDS appears to be diagnosed at a younger age than nationally and to be found more in the Caucasian population and among men who have sex with men. Males account for 89% of the AIDS cases.

#### Indiana HIV infection

HIV infection is reportable in Indiana and an additional 3,661 people have been reported with HIV infection. Of those that know their risk factors, most of the reported HIV have been transmitted from man to man (60%), but heterosexual transmission accounts for up to 18% of all HIV cases. Injecting drug use accounts for 13% of the cases and those with both risk factors (men who have sex with men and also inject drugs) account for 6%. Of those that have been diagnosed with HIV, 22% are not able to identify the behavior/event that transmitted the virus. Most of the cases of HIV are adults, with 38% being 20-29 years old, 39% being 30-39 years old, and 14% being 40-49 years old when they were diagnosed. Youth (13-19 years old) represent 4% of the reported HIV cases. In numbers, the epidemic remains in the Caucasian population. About 60% of the cases are White, 36% African-American or Black, and 4% are Hispanic of any race. The epidemic of HIV infection is naturally diagnosed at a younger age than AIDS. The epidemic is also increasing among African-Americans, Hispanics, and females. Many more of those diagnosed with HIV infection are not able to identify their risk. Males account for 81% of the HIV cases.

#### Prevalence of HIV disease in Indiana

There are currently 6,746 people living in Indiana with HIV disease. The breakdown is in Table 1.

Gender Number Percentage

Table 1. Living with HIV Disease in Indiana, September 30, 2001

Gender	Number	Percentage
Male	5,532	82
Female	1,214	18
Race/Ethnicity		
White	4,158	62
Black	2,269	34
Hispanic (any race)	286	4
Risk Factor		
Men who have sex with men (MSM)	3,404	50
Injecting drug user (IDU)	684	10
MSM and IDU	346	5
Heterosexual contact with HIV+ person	856	13
Not able to identify/report	1,036	15

The counties in Indiana that have over 100 infected people living in the county include: Marion, Lake, St. Joseph, Vanderburgh, Vigo, Madison, Monroe, and La Porte. Every county in Indian has had a resident diagnosed with HIV disease.

A total of 3,719 Hoosiers have died with HIV disease.

#### Youth

Youth are a special concern this year worldwide. Youth are defined as those diagnosed between the ages of 13 and 19. In Indiana, the percentage of diagnoses of AIDS in youth is higher than in the nation, 0.69% and 0.51%, respectively. In Indiana, youth represent nearly 4% of all diagnoses of HIV infection. Youth are especially vulnerable to sexual exposure to HIV. This is evident in the number of sexually transmitted diseases reported in Indiana in the third quarter of 2001. There were 462 cases of gonorrhea reported among 10-19 year olds and 1,305 cases of chlamydia in three months. Youth are sexually active. Female youth are especially vulnerable by

having sex with older men. Over 30% of the diagnoses of HIV disease in this age group are female. The number of youth infected is unknown. Knowing that without treatment HIV infection often compromises the immune system within ten years to the point of a diagnosis of AIDS, one can assume that those that have been diagnosed with AIDS in their early 20s were infected when they were youth. There have been 1,238 Hoosiers diagnosed with AIDS during their 20s. That is 20% of all AIDS cases that may have been infected as adolescents. This is in addition to the 1,379 that have been diagnosed with HIV infection in their 20s.

Indiana is convening a community-planning group of youth ages 13-24 to help plan appropriate and effective HIV prevention programs for youth. A special YOUTH VAN will be traveling around Indiana in the coming months for educating youth and also recruiting youth for the community-based planning group.

#### World AIDS Day Activities

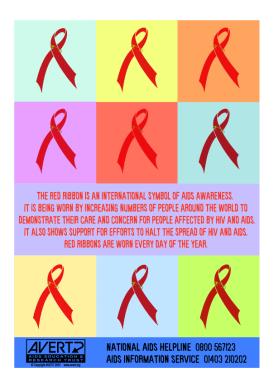
MTV will be broadcasting a ½ hour special profiling young people from around the world infected or affected by HIV on Saturday December 1, 2001. The time is yet to be announced.

There are numerous World AIDS Day activities around Indiana between now and December 1<sup>st</sup>. Check the local health department and AIDS service organization. Many are focusing on youth and prevention of HIV among youth in Indiana.

Additional information and resources may be found at:

http://www.cdc.gov/wad.htm http://www.kff.org/worldaidsday/ http://www.avert.org/ or search for World AIDS Day

The Red Ribbon is an international symbol of HIV and AIDS awareness that is worn by people all year round and particularly around World AIDS Day to demonstrate care and concern about HIV and AIDS, and to remind others of the need for their support and commitment. There is no official Red Ribbon and many people make their own. Wear your Red Ribbon on World AIDS Day.



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## TRAINING ROOM

#### **Foodborne Illness Investigation Manual Training**

A new manual for local health departments was developed last year by staff in the Epidemiology Resource Center and the Food Protection Program. The manual, titled "Foodborne Illness Investigation Reference Manual", is directed toward food safety specialists and public health nurses who investigate foodborne illness outbreaks at the local level. Several training sessions were offered throughout the summer and fall of 2000.

In order to keep up with turnover, ISDH staff will again sponsor three additional trainings for local health department personnel. The schedule is as follows:

November 29<sup>th</sup>, 2001 Holiday Inn, Michigan City December 6<sup>th</sup>, 2001 ISDH Rice Auditorium December 13<sup>th</sup>, 2001 Holiday Inn, Jasper

The programs will begin at 9:30 a.m. and end at 2:30 p.m. The topics will include disease agents, complaint and sample collection and investigation of an outbreak. The training is designed to explain the purpose and the use of the manual in an outbreak situation. Although the programs are being held for new employees, ISDH personnel or anyone needing a refresher may also attend the sessions. There is no cost for the training session, and those interested in travel reimbursement should contact the ISDH Local Liaison Office at (317) 233-7679. To register, please contact Tara Renner, Food Protection Program, at (317) 233-7337 or trenner@isdh.state.in.us.



#### **ISDH Data Reports Available**

The ISDH Epidemiology Resource Center has the following data reports and the Indiana **Epidemiology Newsletter available on the ISDH Web Page:** 

http://www.statehealth.IN.gov (under Data and Statistics)

Indiana Maternal & Child Health Outcomes & Indiana Cancer Incidence Report (1990, 95,96)

Performance Measures (1988-97, 1989-98, 1990-99)

Indiana Cancer Mortality Report (1990-94, 1992-96) Indiana Mortality Report (97,98,99)

Indiana Health Behavior Risk Factors (1995-96, 97, Indiana Natality Report (1995, 96, 97) 98,99)

Indiana Natality/Induced Termination of Indiana Hospital Consumer Guide (1996)

Pregnancy/Marriage Report (1998, 1999)

Indiana Report of Diseases of Public Health Indiana Marriage Report (1995, 96, 97)

Interest (1997, 98, 99)

#### V Disease Summary

#### Information as of October 31, 2001 (based on population of 5,840,528)

#### HIV - without AIDS to date:

356	New cases from November 2000 thru October 2001	12-month incidence	6.10 cases/100,000
3,451	Total HIV-positive, alive & without AIDS on October 31, 2001	Point prevalence	59.09 cases/100,000

#### AIDS cases to date:

336	New AIDS cases November 2000	0 thru October 2001 12-me	onth incidence 5.75 cases/1	00,000
2,867	Total AIDS cases on October 31.	, 2001 Point	prevalence 49.09 cases/1	00,000

6,378 Total AIDS cases, cumulative (alive and dead)

### REPORTED CASES of selected notifiable diseases

Disease	Cases Reported in October MMWR Week 40-43		Cumulative Cases Reported January -October MMWR Weeks 1-43	
	2000	2001	2000	2001
Campylobacteriosis	38	42	485	396
Chlamydia	1,237	1,238	11,385	13,153
E. coli O157:H7	10	6	109	72
Hepatitis A	15	12	88	93
Hepatitis B	1	5	42	42
Invasive Drug Resistant S. pneumoniae (DRSP)	11	10	172	150
Gonorrhea	585	644	5,304	5,761
Legionellosis	2	2	32	19
Lyme Disease	1	2	22	22
Measles	0	0	0	4
Meningococcal, invasive	4	3	32	36
Pertussis	8	5	86	78
Rocky Mountain Spotted Fever	1	0	3	2
Salmonellosis	46	42	540	451
Shigellosis	61	18	1,353	186
Syphilis (Primary and Secondary)	22	13	299	141
Tuberculosis	16	12	116	90
Animal Rabies	0	0	14 (all bats)	15 (all bats)

For information on reporting of communicable diseases in Indiana, call the *ISDH Communicable Disease Division* at (317) 233-7665.

## Indiana Epidemiology Newsletter

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health professionals and to the public health community.

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